

money. Speaking of him, the thought occurs to me, that at the time of his death (1717) the secret was out, and that it must have become known at the time of, or soon after the death of John, in 1700. Possibly at his death, his forceps told the story to Chapman and his brethren, who so mysteriously came into the possession of the secret, and who acknowledged the possession of it, for some years, before they published its true character to the world.

R. P. II.

---

ART. XVI.—*Guy's Hospital Reports*. Edited by H. G. HOWSE, M.D., and FREDERICK TAYLOR, M.D. Third Series, Vol. XXV. 8vo. pp. xviii., 531. London: J. & A. Churchill, 1881.

THE yearly volume of Guy's Reports is ever welcome to the library reading-table. This year's, like its predecessors, comes to us crowded with interesting and instructive materials. We very much miss in the present number many of the older Guy's names, and their absence seems to strike us this year more forcibly than before. In reading the various contributions one cannot fail to notice how strongly the older men have transmitted to their successors the same methods of work, the same mode of thought, as well as the same clearness in expression and teaching. This feature seems to us more noticeable in Guy's Reports than in any of the other London hospitals.

In the first article, which is *On Purpura Hemorrhagica, accompanying the Growth of Multiple Sarcomata*, Dr. HILTON FAGGE gives the history of six cases, with five autopsies, in all of which multiple new formations were found in various parts of the body; in all of the cases purpuric spots occurred on the surfaces. Dr. Fagge remarks that among the various causes of a purpura attended with hemorrhage from the mucous surfaces there is one which seems to have been left almost unnoticed by writers. It is the rapid development of sarcomatous growths throughout the body generally.

From what he has seen, he says, of the "occasional difficulty of recognizing diffused sarcomatous infiltrations of the bones and periosteum in the dead subject, unless careful search is made for them, I feel some hesitation as to whether such disease may not have been really present in some of the few cases which have been set down, even after an autopsy, as examples of Werlhof's morbus maculosus."

Of the *origin* and *causes* of the development of the morbid conditions nothing satisfactory has been pointed out. In at least three of Dr. Fagge's cases the commencement of the disease was attributed by the patient to a chill or to getting wet through. In a fourth case, a cough was among the earliest of the symptoms, but it was probably due to early tubercular disease at the apex of each lung. In the other two cases no prodromal occurrence is noted. The author remarks, "I know that many pathologists would maintain that a neoplasm cannot possibly have its origin in such a cause (chill or wetting); but, for my own part, I must confess that I am not sure of it."

The duration of these cases is comparatively brief, varying from seven days to a few months, and in some of them the interval from the development of the serious symptoms to the fatal issue is strikingly short.

Of the symptoms, the most striking feature which occurred in all of the cases, was the hemorrhage from the mucous membranes and from the viscera, which, in some, was large in amount, and was attended by immediate severe symptoms; for example, from the bowel and the kidney. But other parts and organs also exhibited similar conditions; the mucous membranes of the mouth and nose, and even the conjunctivæ did not escape. This hemorrhage appeared to be due, in all the cases, to the formations of the new growths taking place on or near the mucous surface or in the tissue of the organs from which the blood was discharged. Its occurrence is, therefore, to be looked upon rather as accidental or mechanical, owing to the position of the new formation, than as a symptomatic feature of the multiple growths, irrespective of their site. In other words, there is no evidence from which to draw the inference that multiple sarcomata or other new growths bring about such blood changes that hemorrhage necessarily results, as we find it in scorbutus and similar conditions.

Another conspicuous symptom, which, however, was present in only some of these cases, requires particular mention, viz., the so-called rheumatism, which was ushered in by more or less severe pains, in some cases quite localized, in others diffuse and general. In one or two cases, other symptoms, such as fever and sweating, contributed to give the conditions a rheumatic aspect, and in one case there was a peculiar smelling perspiration. In none of the cases was there any joint affection, and the *post-mortem* examination showed no alterations of these structures.

From what we know of the nature, course, and seat of these and similar pains, it seems evident that the term *rheumatic* is misapplied to them. Although, in some cases, the preliminary exposure to wet and cold may serve as an explanation, still we think that usually the symptom is caused by the new growth, or the lymphatic glands, which are apt to enlarge in its neighbourhood, pressing on the nerve trunks.

The *post-mortem* examination revealed the new formation in nearly all the internal viscera.

The neoplasm, as seen in the viscera, showed many white or pinkish nodules, sometimes succulent, sometimes juiceless. Some appeared tolerably well defined, while others gradually merged into the texture, as if infiltrating it. In the kidney, the new growth involved the pelvis, and this condition undoubtedly gave rise to the blood in the urine. Where the mesenteric glands were involved, or the omental growths were attached to the intestine, ulceration of the mucous membrane of the gut was found.

The tumours in the skin, in some cases, showed as flat purplish spots; in others, they were raised above the surface, indurated and purplish; and, still others, showed a central pale elevation, surrounded by a narrow area of red or purple skin. On section, "they looked exactly as if they consisted of slightly swollen granular masses of adipose tissue, or were minute lymphatic glands, gray and fleshy." The microscope showed the growths generally to be composed of "a highly nucleated small-cell infiltration" (Goodhart), which, in the skin, had "a curious tendency to infiltrate the small lobules of fat, the adipose vesicles being separated from one another, and inclosed each in a kind of capsule of new growth."

The blood, which, in some of the cases, was examined microscopically prior to death, showed no increase of the white corpuscles or other changes which threw any light on the nature of these cases. *Post mortem*, no

alterations were detected; the only change in appearance that is mentioned is that, in one case, the blood presented a chocolate colour. The medulla of the bones, so far as examined, showed no changes.

The author expresses the opinion that one at least, and perhaps a second, of these cases are instances of Hodgkin's disease, and goes on to say that while purpura, epistaxis, and other hemorrhages occur as complications of that disease, they are not among the earliest and most conspicuous symptoms noted.

"Different views may be taken with regard to the relations between sarcomatous growths and purpura. One is that a minute development of sarcomatous tissue, with vessels made up of embryonic cells, occurs at each spot which becomes the seat of an effusion of blood; or, perhaps, the sarcomatous cells, or nuclei, or even leucocytes in an abnormal condition, become lodged in the capillary vessels here and there, and produce softening of their walls after the manner of emboli."

It is probable that both of these views are correct, or rather that each of the conditions described by the author are representative of two stages, a very early and a late one, of the new formation. The early stage of the neoplasm, represented by the flat, red, or purplish spots without induration on the skin and the ecchymoses on the pleura and pericardium, is actually found to be "the sarcomatous cells, etc., lodged in the capillary vessels" after the manner of emboli.

The author advances another view to account for the purpura, the spongy bleeding gums, the epistaxis, etc., viz., that they are the joint results of a profound cachexia or alteration of the blood similar to that of scurvy, splenic leukæmia, etc. It would seem that in these and similar cases where a multiple outburst of tumour-formations takes place, we are almost driven to accept the view that profound blood alterations do exist. In these cases as well as in others, no definite chemical or microscopic changes in the blood have been described—at least not such as are recognized in scurvy or in leukæmia. We may hold the view that a single tumour, for example a carcinoma of the breast, is the necessary precedent of secondary growths in the liver or other organs, and that the primary source of infection is a necessary one in such cases. The primary tumour is the one from which the cells of the secondary growth are derived. But simultaneous multiple growths stand in the same relation to the normal condition that the primary single growth does. The same force which conditions the perversion of the cells in a solitary growth acts for the multiple growths.

Infection may not be the proper word to use in the case of multiple sarcomata, since it may lead to a misapprehension; but, nevertheless, the idea of a general acting force must be brought into view. In splenic leukæmia and in Hodgkin's disease we see an exhibition of similar acting forces as in this group of cases, and while in Hodgkin's disease it often occurs that a certain group of glands are primarily involved, we do not regard these glands as primary tumours which lead to the secondary growths by metastasis.

The paper is an excellent one, and we thank the author, who, by collecting these cases, has rescued the facts from the oblivion in which they were completely immersed. Unfortunately purpura hemorrhagica does not furnish us with the groundwork on which to form a pathological entity, and in the cases here furnished the post-mortem appearances of the new growths are not entirely similar and homogeneous. We are there-

fore lacking at both ends of the line in the materials from which to form a new class of disease. Nevertheless, however much we may question the appropriateness of the heading under which these cases are grouped, there is every reason to thank any one who has laboured to bring together instances where purpuric spots and other connected phenomena exist simultaneously with, or are caused by, new growths of whatever character occurring in the skin, and also in the internal organs of the body.

Dr. THOMAS STEVENSON, in a brief paper on *Thermometric Scales*, points out the origin and the respective use of the three principal gradations. He alludes to the general ignorance of the history of these modes of mensuration, and acknowledges his indebtedness in great part to S. F. Gray's "The Operative Chemist," a book of a half century ago, and now rarely met with.

Dr. P. HORROCKS, in an article on *Reflex Action in Diagnosis*, states the factors brought into play in reflex action; he then considers the reflex movements produced by the application of stimuli to the skin and certain mucous membranes, and the changes which result in these reflexes by various diseases. Following this discussion comes the consideration of the muscle and tendon reflexes, which are not, as according to Erb's theory, truly reflex acts. It seems, however, that if these phenomena are not truly reflex, nevertheless that the usual apparatus of so-called reflex action must be in a state of health in order that the phenomena should occur.

The author then gives the necessary conditions for the production of these knee, ankle, elbow, and wrist phenomena, and furnishes a list of diseases in which they are absent or exaggerated. Dr. Gowers has recently proposed the name of myotatic contractions for these phenomena.

The author has collected a large group of facts which are essential to the study of nervous diseases, and has placed them in a convenient order for reference. So little comparatively is yet known of the essential anatomical basis on which the discussion of these questions rests that heretofore much wasted effort has been spent on theorizing on clinical observations quite insufficient for their determination.

In an article *On the Rheumatic Diathesis in Childhood*, Dr. JAMES F. GOODHART briefly discusses the question of diathesis and what it is. He disclaims an intention to define the word or the *something* which it represents, but his idea, in brief, is that it is equivalent to a family strain, as the term is understood among breeders. Diathesis seems, therefore, according to Dr. Goodhart, to be merely an equivalent expression to hereditary transmission. Nevertheless, the statement is made that syphilis, the most readily and certainly transmitted of all diseases, is excluded from the diathetic class chiefly because of its easy acquirement.

The object of the paper, however, is to give the evidence which he has collected during three or four years upon the question of the liabilities incurred by children of rheumatic parentage. First he says "a word on the intensity of the rheumatic strain," and "from a large number of inquiries upon this point, it appears to me that there are few diseases which run more in families than it." This statement, though unquestionably a true one, does not seem to us to have as its essential basis the proof of either the diathetic or hereditary nature of the disease. We have histories of families in which every member was of illegitimate origin, and all had suffered from venereal disease. The facts furnish no evidence of heredity or of diathesis.

The liabilities, under the rheumatic diathesis, are considered in respect to acute rheumatism, heart-disease, chorea, headache, night terrors, crises gastriques, nocturnal incontinence of urine, etc. "Acute rheumatism in children is in the majority of cases inherited." "Two-thirds (of the cases in children) have rheumatic antecedents of some sort."

The question of heart-disease in children brings us much closer to the heredity and the diathesis in rheumatic affections, and it is probable that the reality of these conditions can be settled by this method only. The author has collected 137 cases of heart-disease in children; of these, 73 had a rheumatic family history, and 19 of the patients had had rheumatic fever. Two-thirds of these nineteen patients would have also a rheumatic family history. In considering whether a mother may transmit to her offspring something which leads to heart-disease, we have to think in the first place what capability she has of altering the heart valves, and under what circumstances endocardial inflammation is produced in her own heart. First, is there any evidence to believe that endocarditis occurs in the mother apart from the more or less acute manifestations of a rheumatic attack? No. To be sure we know of acute rheumatism having as its initial phenomenon endocarditis, but this inflammation is quickly followed by or accompanied with articular symptoms. We do not know of rheumatic cardiac inflammation or chronic valvular changes as the sole manifestation of rheumatism; it is possible for them to occur, but we have no positive knowledge of the conditions. If the mother does not acquire an acute valvular inflammation or chronic valvular thickenings without acute rheumatism, is she more likely to engender such changes in the fœtus in utero than to herself? Again, No.

To answer the latter question in the affirmative requires us to suppose a vastly greater susceptibility of the fœtal tissue to disease than the adult. We have no proof of this, especially not in respect to the fibrous tissue of the cardiac valves. On the other hand, that a mother suffering from acute rheumatism can communicate acute endocarditis to her unborn offspring we can readily believe. And after an acute intra-uterine endocarditis that the cardiac valves should become greatly deformed we can even more readily understand. During fœtal life the tissue of the heart is softer, and when in a state of increased softness from inflammation the force of the blood-current can easily distort and deform the cardiac valvular apparatus, and even its muscular tissue.

It is probable even that most of the cases of congenital malformation of the heart, especially in patients who attain adult life, can receive their explanation by the action of this and similar causes or diseases. Other cases are doubtless due to lack of development of the fœtus from imperfections of the ovum. In these cases, as well as others, to prove their origin unequivocally, it is necessary to make out something more than a diathesis; we must be distinctly cognizant of the actual presence of the disease-causing cause, and that this cause acted on the heart during intra-uterine life. We can readily suppose that a child, whose mother had acute rheumatism during her pregnancy, should suffer from acute endocarditis, but not sufficiently or severely enough to leave behind the traces, the valvular murmurs, by which we are able to recognize the past cardiac disease. That the valves of such a heart are especially liable, may prone to subsequent inflammation, or even chronic thickening during later life, is only what we are perfectly familiar with in many rheumatic adults.

In respect to chorea, the author states that from his cases, eighty-one

in number, the disease in two-thirds of the instances is found with close rheumatic relations, but he does not think it is always rheumatic by any means. The relationship which the paper shows rheumatism to have to other neurotic diseases is most interesting.

The appendix of cases read in connection with the author's remarks, which we have given in brief, are very valuable, and will afford a basis from which the subsequent study of this question may be pursued as it deserves to be.

Dr. F. H. FREDSMITH, in a paper on *Alopecia Areata*, discusses the different varieties of loss or absence of hair, but especially that indicated by the title.

He states that, on one occasion only, has he found "some spores and scanty mycelium close to one of the neighbouring hairs," but he is thoroughly in accord with most modern dermatologists, that the presence of a parasite is entirely accidental. "Apart from the microscopical evidence, the naked-eye appearances and natural history of the disease would alone disprove the parasitic hypothesis. The hairs around the affected spot are not swollen at the root, nor brittle in the shaft, but are simply atrophied, like normal hairs which are ready to drop off. There is no evidence of local irritation in the hair-sac. The disease, above all, is not contagious, and is not curable by anti-parasitic treatment.

The disease is more common before the age of thirty than after, and affects both sexes equally. It occurs in persons of all conditions of general health, complexion, and temperament. Second attacks are rare after a first attack.

Such, in brief, is the account which the author furnishes of this disease.

*On the Fatal Termination of Diabetes, with especial reference to the Death by Coma*, is the title of a paper by Dr. FREDERICK TAYLOR, which contains a record of the deaths in Guy's Hospital from diabetes, during eight years, from 1873 to 1880. One hundred and fifty-nine cases of this disease were admitted during this period, of which 43 died. The cause or mode of death in these cases is stated, as follows: Coma, with or without visceral lesions, 26; coma, with renal disease, 3; doubtful cases, 3; various other visceral localizations, principally pulmonary, but no coma, 11.

This summary does not include all the possible causes of death in diabetes, such as fevers, gangrene, apoplexy, malignant disease, etc., but is sufficient in number to indicate that those mentioned are not very common. It shows that the chief causes of death are phthisis, pneumonia, and the train of nervous symptoms usually described as coma. These figures increase very considerably the proportional number of deaths from coma. The proportional increase may result in two ways: first, from this comparatively small number of cases accidentally furnishing a larger number than usual of comatose cases; and, secondly, because this symptom as a cause of death is comparatively a new observation, and, until Kussman's description in 1874, almost unnoted. The latter cause acts probably more strongly in increasing the proportion, since we shall find that the older observers of diabetes content themselves with an indefinite description of death by exhaustion, nervous symptoms, and doubtless, also, many put down to apoplexy were cases of suddenly developed coma. Then, too, in many cases of lung diseases, attended at their termination with coma, this symptom, as well as death, has been attributed entirely to the pulmonary lesions, and, doubtless, often without just cause. All of these considerations, if applied to a review of former cases, would increase the proportion of deaths from coma.

The author considers the various theories which have been proposed to account for the outbreak of the symptoms. These may be divided into three groups: *first*, an exhaustion of the nervous centres, coming in the natural course of the disease, or from some accidental occurrence, such as over-exertion; *second*, the accumulation of some effete morbid products, or the formation of new bodies in the blood; *third*, the alteration of the physical conditions of the circulating fluid (blood-thickening).

The second of these theories has received the most attention of late, and it is divided into two branches: *first*, the development of acetone (acetonæmia); and, *second*, lipæmia and fatty embolism of the viscera. Of the first substance, acetone, its presence is not, by any means, constant, and when occurring in small quantities is insufficient to produce the symptoms, so that the mere detection of its smell does not warrant the diagnosis of death from acetonæmia, any more than its presence would justify an unfavourable prognosis.

The question of the uræmic nature of this form of coma naturally falls under this group, but there is little to support the view, even if albuminuria existed simultaneously with it, and in connection with a diminution of the excretion of the urine.

In respect to fatty embolism, the milky state of the blood was present in only two of the cases, showing that while such a condition may produce in diabetes coma, or other nervous phenomena, as it does after fracture, still the majority of cases of diabetic coma cannot be of this origin. The source of the fatty material in diabetes has not been shown with certainty.

That the blood, in certain cases of diabetes, is found, *post-mortem*, in a thickened condition, has been shown by numerous records, and it is supposed that this state was due to the excessive drain of its watery portion. On this supposition Dr. Hilton Fagge founded his attempt to treat these comatose patients by intravenous injections of water and of saline solution. In regard to the theory of this third group, "the only evidence that these cases afford in reference to the blood-thickening is to be found in the results of the treatment attempted." Fagge's first case was partially successful, but all the other cases (six in number), subjected to similar measures, were without result, or, at best, quite temporary improvement.

For the first theory, no facts have been adduced beyond mere generalities, and the bare statement of the comatose condition being due to exhaustion of the nervous centres is without support from any other known condition. No form of nervous exhaustion with which we are familiar numbers among its symptoms coma; on the contrary, all the phenomena attendant on the development of diabetic coma point to a poisoned condition of the blood with close analogies to uræmic coma.

Ebstein, whom the author quotes, has shown recently, in the *Deutsches Archiv*, the changes in the renal epithelium which he found in diabetes. These alterations, consisting of various forms of epithelial necrosis, he considers due to a number of conditions of blood changes which have been discovered in diabetes. These conditions do not coexist necessarily in a single case, though all of them are liable to; many of them have been shown to be capable of producing the alterations of the renal epithelium. The alterations consist partly of a hyaline transformation, partly of a disappearance of the nuclei with breaking up of the protoplasm into lumps. The conditions of the blood capable of producing these alterations are deprivation of water in the blood and tissues, hyperglycæmia, acetonæmia, the presence of acetic acid, alcohol, etc.

"Once produced, this necrosis acts prejudicially by preventing the proper elimination of the poisons which circulate in the blood tissues as a result of the morbid metamorphosis, thus determining a condition analogous to, but not identical with, uræmia. A great accumulation of these poisonous products might exceed the powers of even healthy kidneys to excrete them."

From all the evidence at hand, we may conclude that diabetic coma is not due to one condition solely, but to any one of a number of related conditions, or to a combination of several of them. A necessary precursor of the coma is either a very great accumulation of the poisonous products or a changed kidney which fails to remove them from the blood. That the latter is more prominent, we might almost say essential, seems to be shown now that Ebstein has pointed out the alterations of the renal epithelium. It must be remembered that nearly every case of diabetes shows, post mortem, some change in the kidney. Ordinarily, unless the kidneys are grossly altered or else present some of the conditions with which we are familiar in Bright's disease, they have been considered heretofore as normal, and have been so reported. The alterations in size, which have been looked upon as hypertrophy from overwork, are just such changes as Ebstein's epithelial necrosis would be likely to produce.

There are various predisposing and exciting causes which the author points out, such as age, sex, duration of the disease, treatment, various local lesions, fatigue, which have but a doubtful influence in producing death by coma. The details of the onset of the symptom, and of the occurrence of pain usually referred to the abdomen, are all of great interest in these cases. The summary of symptoms given by Senator, and quoted by the author, is exceedingly good.

"Sometimes suddenly without any premonition, sometimes after a first stage of agitation, with general uneasiness, oppression, anxiety, and pain in the region of the stomach, the patient becomes somnolent, moves about restlessly, generally groaning loudly. The pulse becomes frequent, the arterial tension is low; the breathing is hastened and deep, although there is no impediment in either the upper or lower portions of the respiratory apparatus. The extremities become cool, and even the general temperature of the body falls below the natural, and, finally, death ensues amid the deepest coma, sometimes after the supervention of twitchings."

Dr. PYE-SMITH presents some *Observations on the Various Forms of Superficial Dermatitis, particularly Erythema, Eczema, Psoriasis, Lichen, and Pityriasis Rubra. With Cases.* He discusses principally the classification of certain forms of skin disease.

The next paper is on *Chronic Bright's Disease without Albuminuria*, and formed a thesis presented for the degree of Bachelor of Medicine of the University of Cambridge, June 16, 1881, by Dr. F. A. MAHOMED. The subject of Bright's disease still finds a fruitful field and able cultivators in the seat of its birthplace. The object of this article is to show that not only is the urine in chronic Bright's disease occasionally, or even not infrequently, free from albumen, but to prove that in the earlier stages, and in most cases even in their final stage, the urine from the red granular kidney is most commonly perfectly normal. "More than this, its object is to prove either that chronic Bright's disease is not a renal disease, or else that another disease must be recognized, which constantly precedes and prepares the way for Bright's disease, which may be called arterio-capillary fibrosis, or any other name that may be preferred to it."

After speaking of the various modifications of forms of the kidney in

Bright's disease, he shows "that the changes in the kidney may be arranged under three heads: 1. Epithelial changes: 2. Interstitial cell growth and fibro-hyaline changes; 3. Vascular and perivascular thickenings." "It is with the clinical history of these latter changes that it is proposed to deal at present." Since the changes are in the vascular structures, the cause of the condition must be sought in the vascular system during life. We find it, he suggests, in the increased arterial pressure occurring in all forms of Bright's disease, and this pressure produces directly the vascular alterations. The state of high arterial pressure is therefore to be regarded as an antecedent stage of the vascular alteration, and consequently of granular kidney.

From these considerations, he thinks that "we have to deal with three stages of chronic Bright's disease: First, *the functional stage*, which is limited to the condition of high arterial pressure without organic changes in either the vascular system or the kidneys; second, *chronic Bright's disease without nephritis*, the stage of organic changes in the vascular system and in the kidney (arterio-capillary fibrosis); third, *chronic Bright's disease with nephritis* (cirrhotic kidney and prominent renal symptoms)." It is the second of these stages to which the author devotes attention in this paper, and in it the kidney, to the naked eye, is purely red, more or less granular, the capsule somewhat and perhaps extremely adherent, the cortex atrophied, the arteries thickened, gaping, and prominent, the heart more or less hypertrophied; in some cases the kidney may look perfectly healthy, with perhaps the arteries a little thick. The microscope shows thickening of the *membrana propria* of the tubules, thickened Malpighian capsules, intertubular fibro-hyaline thickening, the arteries thickened by muscular hypertrophy and by fibro-hyaline thickening of the intima and perhaps of the adventitia; the epithelium normal or only a little granular. These kidneys differ in appearance from those of the third stage in not showing gray or yellowish mottling. The third stage has among its symptoms almost invariably albuminuria, and not unfrequently dropsy, which in the second stage are absent. The diagnosis of these kidneys can be made "by the cardio-vascular symptoms alone."

Of the accuracy and substantial reality of the changes here described as occurring in the kidney there does not seem to be a doubt. This interpretation of the facts has met with no support in Germany, and but few English writers have given it their approval. In truth, as it is here stated, nearly the whole theory is original with the author, and while exceedingly valuable in many respects, we do not think that it will become the accepted view for the progress of the changes in Bright's disease. To note only a single point, it seems defective in explaining the initial steps in progressive cardio-vascular changes.

Mr. FRANCIS GALTON, F.R.S., and Dr. MAHOMED, present *An Inquiry into the Physiognomy of Phthisis by the Method of "Composite Portraiture,"* in which they attempt to prove or disprove the reality or non-reality of a diathesis, and to ascertain whether "certain physical conformations indicate predispositions to certain diseases."

The method employed was to gather a large number of photographs of persons suffering from phthisis. The limits of the age of patients was fixed between fourteen and forty years. Four hundred and forty-two photographs were secured. From these faces it was sought to obtain the average face by which the physical lineaments of the disease could be

shown. The method pursued is what is known as "composite portraiture," and may be described as a pictorial average, made by exposing a photographic plate to a series of individual negatives in succession an equal fraction of time. Thus, if it required two hundred seconds of exposure to complete a picture, and it was wished to make a composite of ten faces, each negative would be exposed only the tenth part of the whole time, or twenty seconds, and so on.

For the sake of comparison with the phthisical faces one hundred men and women each, taken unselected from hospital patients, were obtained. After great care in selecting similar faces among the phthisical cases in order to obtain the general average face, and where the numbers are sufficiently large, the uniformity of the results as shown in the composite portraits is very noticeable.

We quote the conclusion which was arrived at. "Finally, we may say that our results appear to lend no countenance to the belief that any special type of face predominates among phthisical patients, nor to the generally entertained opinion, that the narrow, ovoid, or 'tubercular' face is more common in phthisis than among other diseases. Whether it is more common than among the rest of the healthy population we cannot at present say."

There are five photographic plates appended to the paper, showing forty-eight figures of composite and individual portraits. M. L.

We shall next consider the surgical papers.

Mr. CHARLES HIGGINS contributes a paper on *Distension of the Frontal Sinus*. Four cases of this rather unusual affection are detailed. In each of them the trouble manifested itself as a bony prominence immediately above the region of the lachrymal sac. Upon breaking into the tumour with forceps a quantity of more or less viscid fluid escaped, and it was found easy to establish a communication between the sinus and the nasal cavity by the somewhat forcible use of a probe. A drainage-tube was passed through the opening thus made, and retained for a longer or shorter period, resulting in permanent cure in all four cases. Mr. Higgins has made diligent search through very many surgical authorities and finds but slight mention made of similar cases, yet he thinks they cannot be extremely rare, as he has himself seen no less than seven.

R. E. CARRINGTON, M.D., contributes a *Note on the Triangular Ligament of the Urethra*, in which he criticizes the descriptions of this structure, as given in the standard anatomies. Dr. Carrington thinks that the superficial layer of the triangular ligament is a special fascia, which opinion no authority attempts to controvert. "The deep layer is formed by the obturator fascia, which, anteriorly, is found to stretch across the pubic arch and close it." This discussion of the question is minute, and made clear by diagrams, without the aid of which we can hardly hope to make the matter plain to our readers. Nor, indeed, are we able to see that it is a matter of much importance whether the condensed cellular tissue which goes to form the deep layer of the triangular ligament is derived from a pelvic or obturator reflection. It may account for the course taken by various extravasations, but can hardly influence the steps of any surgical procedure.

A *Second Case of Fracture of the Skull, followed by a Collection of Cerebro-Spinal Fluid beneath the Scalp*, is narrated by B. CLEMENT LUCAS, B.S. Mr. Lucas's first case was told in former volumes of these

Reports, and eventually terminated fatally by meningitis, after a long period of apparently complete recovery. This second case was a simple fracture of the frontal bone, occurring in a child two years old, as the result of a fall. After some days, and the subsidence of the primary swelling, a tumour with fluid contents could be made out over the seat of the fracture. This swelling varied in size from day to day, and with the aid of a hypodermic syringe its contents were found to be "a clear, faintly alkaline fluid, with a few small flakes slightly tinged with blood." Two years and seven months had elapsed at the time the report was written, and the tumour had in great part disappeared, while the child was sufficiently well to attend school. All of the cases of this accident thus far reported, from Guy's, four in number, occurred in children, and Mr. Lucas thinks they cannot occur in adults, as the bones then have too great firmness to permit of their being so far driven in without an external wound. Mr. Lucas does not think that the fluid could have been derived from the subarachnoid space, which contains but little, and when irritated pours out lymph, but is decidedly of the opinion that the anterior cornu of the lateral ventricle was wounded. He is induced to hold this view from the fact that in the post-mortem examination of his first case the descending horn of the ventricle was found to have been injured.

Another very interesting article, by the same author is, *On a Remarkable Instance of Hereditary Tendency to the Production of Supernumerary Digits*. The patients who came under Mr. Lucas's notice belonged to a family which had exhibited this tendency through five generations, and whose great-grandmother had among her eighty descendants no fewer than twenty-four who presented abnormalities. Mr. Lucas calls her the great-grandmother, but as there were no less than five generations, it would seem that this remarkable personage was certainly the great-great-grandmother to her great-grandson's children who came under the care of Mr. Lucas. An ingeniously constructed table makes the whole thing very plain, and Mr. Lucas gives the names of the parties, in case other surgeons should come across descendants of this individual, presenting abnormalities. It is certainly a most interesting case in its bearings upon the question of heredity.

*A Case of Osteitis Deformans* is contributed by C. J. SYMONDS, M.S., having been under his observation in the person of a woman, in whom it made its first appearance when she was forty-eight years old. It attacked first the left tibia, then the right. After some years the right arm became the seat of aching pains, which disappeared when the left arm became crooked. The gradually effected distortion of the left arm was unaccompanied with pain, at the same time the right hip became deformed and prominent. At the time of reporting the case the patient was sixty-nine years old; and while there is marked deformity of the left forearm and both legs, her principal trouble has been an ulcer upon one of the latter. She enjoys otherwise tolerably good health. A lithograph is given showing the amount of deformity existing in the left forearm.

A very interesting article is *On Three Cases of Reduction en masse*, by N. DAVIES-COLLEY, M.C. More than in almost any other surgical disorder is instruction to be obtained from the study of individual cases of strangulated hernia, for even the most ripe experience will generally find some peculiarity in each case observed. Mr. Davies-Colley puts on record three cases in point. One of them was an inguinal hernia which went up under taxis, carrying the sac with it, and the continued strangulation.

lation was only finally relieved by an extended exploratory incision, which revealed the true state of things and averted the impending fatal result. The other two cases were femoral hernie, in which an operation was done and the sac opened, and yet the bowel went up not into the peritoneal cavity, but into spaces between the peritoneum and the abdominal walls. The writer of the paper thinks that the occurrence of such cases is to be accounted for on the supposition that the attachments of the sac are unusually loose, and that in attempting to insert the finger as a director under the stricture, it does not go far enough, only the most superficial portion of the stricture is notched, and then with the deeper parts unincised the whole sac yields to pressure, and goes into an extra-peritoneal pouch. He urges that where there is any difficulty in placing the finger fairly within the femoral ring, the large flat director should be used, as more certain to enter the abdominal cavity, and that should the bowel not go up freely, the incision should be extended upwards to Poupart's ligament, and even through that structure if necessary, so that a thorough examination of the parts may be made. He thinks it better to divide and ligate the deep epigastric rather than to run the risk of cases terminating as did two of those he reports. The paper is valuable, and should be carefully read. It seems to us to include a very strong argument against doing any operation without opening the sac.

C. H. GOLDING-BIRD, B.A., M.B., has an article *On Chronic Nasal Obstruction*, of which the subdivisions are Ozæna and Adenoid Growths of the Naso-Pharynx. He very properly gives prominence to the scrofulous diathesis which underlies so many cases of ozæna, in which the offensive discharge is not caused by syphilitic disease of the bones. He draws attention to the fact that a certain amount of widening and depression of the nose ensues in long-continued ozæna, dependent upon disease of the mucous membrane, as well as in those cases when there is actual necrosis of bone from syphilis. In these cases, there will also, according to Mr. Golding-Bird's observation, be occasional exfoliation of bone without the presence of a syphilitic taint. The cases narrated are classified as constitutional ozæna, subdivided into *a*, strumous, and *b*, syphilitic, and local ozæna, from blows or other injuries. The second part of the paper, and the more important, is devoted to adenoid growths of the naso-pharynx. Some cases are detailed and the importance of decided local treatment is dwelt upon. This treatment principally consists in removing the growths by scraping, through the mouth. A spoon devised by Mr. Golding-Bird for this purpose is figured.

A paper of very great and permanent value is a *Statistical Account of the Surgical Treatment of Aneurism*, collected from the Hospital Records by CHARLES J. SYMONDS, M.S. From its statistical and analytical character it does not admit of condensation, so that we are compelled to satisfy ourselves with merely noticing one or two points, and must refer those of our readers who are interested in the subject to the paper itself. It consists of an examination of eighty-two cases occurring in Guy's between the years 1866 and 1880. Nor does this large number represent all the cases of aneurism which have presented themselves during this period, but is confined to those in which distinctly surgical treatment was resorted to, even traumatic cases treated by division and ligation being excluded. In thirty-two cases the Hunterian operation was done; in three the distal method was employed, and in three the sac was laid open, and the vessel tied above and below, while in forty-three compression was resorted to. For

the last method a success of 56.89 per cent. is claimed. We notice that previous compression appeared to exert an unfavourable effect when it was ultimately found necessary to resort to the ligature. Yet the reporter thinks that other circumstances than the compression were involved in the question and that a conclusion should not be hastily arrived at. He evidently thinks highly of the antiseptic method of treating the wound, and attributes much of the recent success obtained to it. Mr. Symonds attaches much importance to the early closing of the wound, and he is in accord with the best surgical authorities in that respect, but we cannot but question his conclusion, that in order to obtain speedy union the cat-gut ligature must be used, for we regard a carbolized silk ligature as less likely to slip, and almost as apt to cause no local disturbance. Altogether the paper is important as a record of the work done at Guy's, and fittingly closes the surgical portion of a volume that assumes its place in the valuable series which we had feared the internal dissensions of two years since had permanently interrupted.

S. A.

---

ART. XVII. — *Diseases of the Rectum and Anus.* By CHARLES B. KELSEY, M.D., Surgeon to St. Paul's Infirmary for Diseases of the Rectum, etc. New York: William Wood & Company, 1882. 8vo. pp. xii., 299. Illustrated.

It might seem, at first thought, that the disorders of the lower end of the bowel and its adjacent parts had been sufficiently discussed by English and Continental specialists, and that there was no sufficient occasion for a new book of three hundred pages upon this subject. But a careful examination of the work before us shows that it has a good *raison d'être*; and though the author avoids making, in his preface, any formal apology for his production, the simple statement of the reasons why he wrote it is followed by no disappointment as one goes along to the body of the book.

The opening chapter discusses the anatomy and physiology of the rectum and its appendages. This is well done, though most of it at second hand. If the author has opportunity, it would increase the value of his book if he would give us more of the results of his personal dissections and experiments. Possibly, in this case, he might withdraw his apparent endorsement of the opinion that the rectum is intolerant of feces, and that their mere presence excites it to expel them. This opinion is probably founded upon observations made in the dissecting-room; for it certainly would not be suggested by the ordinary experience of the obstetrician, or of one who makes digital examinations of the rectum. To both these it is very exceptional to find a rectum that does not contain a considerable amount of fecal matter, as the author, of course, knows. So that he might speak a little more positively than to say "the normal empty state of the rectum is not universally admitted." His argument against the existence of a third sphincter would be conclusive enough, without the attempts to overthrow assumptions founded directly upon a mistaken notion in regard to the parts below it.

The more practical part of the book begins with the second chapter, which treats of "Congenital Malformations of the Rectum and Anus." In